Claims

1.   Record carrier for storing at least one stream of linked content cells thereon, which linking is performed based on navigation data,
characterized by
        modified navigation data and/or a stream arrangement of at least one stream of linked content cells, so that an access of the record carrier under consideration of the navigation data is not disturbed, whereas a generally linear access of the record carrier is disturbed.

2.   Record carrier according to claim 1, **characterized by**
        at least one reproduction obstructing cell physically stored before or after a linked content cell, and/or
        a physical storage arrangement of at least one of the at least one stream of linked content cells that is not in conformity with the linking order of these content cells, and/or
        file system structures and/or file content used to locate the linked content cells on the record carrier that direct read-out devices that use data that are not explicitly stated in the standard of the record carrier to at least one reproduction obstruction data and/or cyclic data.

3.   Record carrier according to claim 2, **characterized in that** said linked content cells are linked and said at least one reproduction obstructing cell is physically arranged so that a reproduction device dedicated to said type of record carrier automatically gets navigated around said at least one reproduction obstructing cell during its access of the linked content cells stored on the record carrier, whereas the at least one reproduction obstructing cell gets accessed additionally to the accessed linked content cells when no such dedicated reproduction device is used for accessing the record carrier.

4.   Record carrier according to claim 2 or 3, **characterized in that** an access of said reproducing obstructing cells

prohibits or disturbs a further reproduction or reduces an entertainment value of reproduced content that is originally stored within the content cells on the record carrier.

5   5.   Record carrier according to anyone of claims 2 to 4, **characterized in that** said reproducing obstructing cells comprise modifications that do not conform to the DVD Physical Specification, in particular infringe rules of EFM+ coding, and/or set wrong ECC data for PI and/or PO, and/or
10   set wrong EDC, ID, CPR_MAI and/or IED data, and or add/set illegal UDF file system data, e.g. cyclic references.

6.   Record carrier according to anyone of claims 2 to 5, **characterized in that** said reproducing obstructing cells
15   comprise data that does not conform to the used streaming media standard, and/or that generate permutations of reproduced content stored within the content cells, and/or that adds content not related to the content stored within neighbouring content cells, in particular advertising
20   content, and/or that modifies reproduced audio and/or video content stored within the content cells so that it is experienced unpleasantly.

7.   Record carrier according to anyone of claims 2 to 6,
25   **characterized in that** said at least one reproduction obstructing cell is a stream of linked reproduction obstructing cells that is interleaved with at least one stream of linked content cells, wherein each of the interleaved stream of linked cells provides one playback path
30   and the playback path corresponding to the linked reproduction obstructing cells is not accessed by a reproduction device dedicated to said type of record carrier.

8.   Record carrier according to anyone of claims 1 to 7,
35   **characterized in that** said navigation data comprises branch commands that are arranged in pre-commands and/or post-commands of program chains that comprise at least one program or in cell commands within programs, which are defined as a sequence of content cells.

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9. Method to provide a copy protection for a record carrier for storing at least one stream of linked content cells thereon, which linking is performed based on navigation data, **characterized by** the step(s) of:

5   modifying navigation data and/or setting a stream arrangement of at least one stream of linked content cells, so that an access of the record carrier under consideration of the navigation data is not disturbed, whereas a generally linear access of the record carrier is disturbed.

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10. Method according to claim 9, **characterized by** the step(s) of:

physically storing at least one reproduction obstructing cell before or after a linked content cell, and/or

15   arranging a physical storage of at least one of the at least one stream of linked content cells that is not in conformity with the linking order of these content cells, and/or

modifying file system structures and/or file content

20   used to locate the linked content cells on the record carrier so as to direct read-out devices that use data that are not explicitly stated in the standard of the record carrier to at least one reproduction obstruction data and/or cyclic data.

25   11. Method according to claim 10, **characterized in that** said linked content cells are linked and said at least one reproduction obstructing cell is physically arranged so that a reproduction device dedicated to said type of record carrier automatically gets navigated around said at least one

30   reproduction obstructing cell during its access of the linked content cells stored on the record carrier, whereas the at least one reproduction obstructing cell gets accessed additionally to the accessed linked content cells when no such dedicated reproduction device is used for accessing the

35   record carrier.

12. Method according to claim 10 or 11, **characterized by** the step of: selecting a content of said reproducing obstruction cells so that an access of said reproducing obstructing cells

40   prohibits or disturbs a further reproduction or reduces an

entertainment value of reproduced content that is originally stored within the content cells on the record carrier.

13. Method according to anyone of claims 10 to 12, **characterized by** the step of: inserting modifications that do not conform to the DVD Physical Specification into said reproducing obstruction cells, that in particular infringe rules of EFM+ coding, and/or set wrong ECC data for PI and/or PO, and/or set wrong EDC, ID, CPR_MAI and/or IED data, and or add/set illegal UDF file system data, e.g. cyclic references.

14. Method according to anyone of claims 10 to 13, **characterized by** the step of: inserting data that does not conform to the used streaming media standard, and/or that generate permutations of reproduced content stored within the content cells, and/or that adds content not related to the content stored within neighbouring content cells, in particular advertising content, and/or that modifies reproduced audio and/or video content stored within the content cells so that it is experienced unpleasantly into said reproducing obstructing cells.

15. Method according to anyone of claims 10 to 14, **characterized by** the step of: using navigation data to provide the linking of said linked content cells, in particular branch commands that are arranged in pre-commands and/or post-commands of program chains that comprise at least one program or in cell commands within programs, which are defined as a sequence of content cells.

16. Method according to anyone of claims 10 to 15, **characterized by** the step of: interleaving a stream of linked reproduction obstructing cells with at least one stream of linked content cells, wherein each of the interleaved stream of linked cells provides one playback path and the playback path corresponding to the linked reproduction obstructing cells is not accessed by a reproduction device dedicated to said type of record carrier.

17. Method to copy a record carrier for storing at least one stream of linked content cells thereon, which linking is performed based on navigation data,
characterized by

5   accessing of the at least one stream of linked content cells on the record carrier under consideration of the navigation data.

18. Method according to claim 17, **characterized by** the
10· step(s) of:
        determining all reproduction obstructing cells physically stored before or after a linked content cell and modifying or removing these cells so that reproduction of the copy of the record carrier is not obstructed thereby, and/or
15   determining of a linking order of the at least one stream of linked content cells and physically store the at least one stream of linked content cells so that a reproduction of the copy of the record carrier is not obstructed thereby, and/or
20   locate a root navigation file only using file system structures and/or file content related to the linked content cells as described in the in the standard of the record carrier.

25 19. Computer program product, comprising computer program means adapted to perform the method steps as defined in anyone of claims 9 to 16 when being executed on a computer, digital signal processor or the like.

30 20. Computer readable storage means, storing thereon a computer program product according to claim 19.